VTT Technical Research Centre of Finland

Selection of Urban Living Labs in Alby and Peltosaari

Karlsson, Anja; Seitsonen, Ilari; Thörn, Philip; Federley, Maija; Holopainen, Riikka; Sepponen, Mari

Published: 01/01/2015

Document Version
Publisher's final version

Social uplifting and modernization of suburban areas with Urban Living Lab approach

01-04-2013 – 30-03-2016

Deliverable D 3.1 & D 3.2
Selection of Urban Living Labs in Alby and Peltosaari

Dissemination level		
PU	Public, to be freely disseminated, e.g. via the project website	X
IN	Internal, to be used by the project group	

Disclaimer

Table of contents

1 Executive summary 4

2 Introduction 5
2.1 About SubUrbanLab 5
2.2 Purpose and target group 5
2.3 Contributions of partners 5
2.4 Relations to other activities in the project 6
2.5 Methodology 6

3 Selection of Actions for ULLs in Alby 7
3.1 About Alby 7
3.2 Alby ULL1: Shape your world 8
Summary of the Urban Living Lab (ULL) 8
Selection process 8
3.3 Alby ULL2: New light on Alby Hill 9
Summary of the ULL 9
Selection process 10
3.4 Alby ULL3: Vacant Space Alby 11
Summary of the ULL: 11
Selection process 11

4 Selection of Actions for ULLs In Peltosaari 13
4.1 About Peltosaari 13
4.2 Peltosaari ULL1: Energetic co-operation 14
Summary of the ULL: 14
Selection process 14
4.3 Peltosaari ULL2: Sustainable decisions 15
Summary of the ULL 15
Selection process 16
4.4 Peltosaari ULL3: Together more 17
Summary of the ULL 17
Selection process 18

5 References 19

1 EXECUTIVE SUMMARY

Across Europe, some 200 million people live in suburban areas in great need of modernisation and social uplifting. The SubUrbanLab project (2013-2016) aims to examine how these areas can be modernised and socially uplifted together with the residents and other stakeholders in order to turn them into more attractive, sustainable and economically viable urban areas. To do this, the project will develop and set up so called Urban Living Labs (ULL), i.e. arenas for innovation and dialogue that focuses on solving challenges in the urban area by involving residents and other stakeholders, in connection to needed modernization actions in two suburbs, one in Sweden (Alby in Botkyrka municipality) and one in Finland (Peltosaari in the City of Riihimäki).

In Alby, three ULL will be developed and set up in connection to needed modernization actions. The first ULL "Shape your world" focuses on involving youth in urban gardening in order to increase their knowledge about gardening and sustainability while renewing the urban environment. The second ULL "New light on Alby Hill" will examine on how to use new LED-technology and involve residents in order to turn a passage way for pedestrians in Alby, currently perceived as unsafe, into a more attractive and frequently used passage way. In the last ULL "Vacant Space Alby" ideas for temporary activities for a 9000 m^2 vacant space in Alby Centre will be developed together with residents and other stakeholders.

Three ULL's will also be developed and set up in Peltosaari. The first ULL "Energetic co-operation" focuses on improving energy-efficiency of the buildings through resident-oriented energy saving, together with the residents. The second ULL "Sustainable decisions" will involve municipality decision-makers in the development of better decisions and enforcement related to energy efficiency and sustainability of building and renovation. In the third ULL "Together more" the focus is on creating services in an existing commercial building and in the outdoor environment in Peltosaari, together with residents.

This report describe the selection process of the above modernization and social upgrading actions for which Urban Living Labs will be developed and set up in Alby (Sweden) and Peltosaari (Finland).

2 INTRODUCTION

2.1 About SubUrbanLab

Across Europe, some 200 million people live in suburban areas in great need of modernisation and social uplifting. The SubUrbanLab project (2013-2016) aims to examine how these areas can be modernised and socially uplifted together with the residents and other stakeholders in order to turn into more attractive, sustainable and economically viable urban areas.

The project will develop and set up so called Urban Living Labs, i.e. arenas for innovation and dialogue that focuses on solving challenges in the urban area by involving residents and other stakeholders, in connection to needed modernization actions in two suburbs, one in Sweden (Alby in Botkyrka municipality) and one in Finland (Peltosaari in the City of Riihimäki). Within the Urban Living Labs, residents and other stakeholders will be involved, using e.g. online tools, social media and face-to-face meetings, in developing and implementing innovative solutions to increase the social, economic and environmental sustainability in these areas in great need of modernisation and social uplifting. The project team will also evaluate the implemented Urban Living Labs and the co-creation methods used in these Urban Living Labs and assess the potential for their up-scaling across Europe.

Project partners are: IVL Swedish Environmental Research Institute, Botkyrka municipality, VTT Technical Research Centre of Finland and City of Riihimäki.

The project is funded by VINNOVA and Tekes through Joint Programming Initiative – Urban Europe.

2.2 Purpose and target group

The purpose of this report is to describe the selection process of the modernization and social upgrading actions for which Urban Living Labs (ULL) will be developed and set up in Alby and Peltosaari.

The presented results are primarily of interest for other stakeholders interested in establishing Urban Living Labs, researchers on Urban Living Lab methodologies and the project partners in the SubUrbanLab project.

2.3 Contributions of partners

This report has been produced by Philip Thörn (IVL), Ilari Seitsonen (City of Riihimäki) and Anja Karlsson (IVL), as well as Maija Federley, Riikka Holopainen and Mari Sepponen from VTT. All project partners and Boodla, subcontractor in ULL no 1 in Alby, has provided valuable input to the report.

2.4 Relations to other activities in the project

This reports draws on the results from WP 2, Task 1-3, i.e. the definition of boundary conditions for a successful Urban Living Lab work and the definition of ULL methods and approaches.

The results/outputs from this report will feed into deliverable D.3.3.a and D.3.3.b, i.e. Establishment and implementation of Urban Living Lab methods in social upgrading and modernization projects in Alby and Peltosaari.

2.5 Methodology

The selection process of Urban Living Labs in Alby and Peltosaari has been conducted using the pre-defined selection criteria presented in the project plan:

i) the actions, around which the ULL will be developed, should be in an early stage of development in order to allow user and stakeholder co-creation throughout the development of the action and make full use the Urban Living Labs;

ii) the technologies/innovations in focus should aim to address real modernization and social upgrading needs and increase the suburbs' attractiveness, sustainability and economic viability (i.e. in order to allow for these parameters to be evaluated in WP4), and

iii) the actions within the ULLs should be implemented within the period 2013-2015, in order be able to study the entire process of the action.

The selection process draws on Botkyrka's and Riihimäki's work on local sustainability in Alby and Peltosaari and overall planning of modernization and upgrading actions. The residents, and other relevant stakeholders, have actively been involved in and played an important role in the selection process. The selection processes for the different actions is described more in detail in sections 3.1-3.3 and 4.1-4.3. In describing the selection process of the action, meeting minutes written from the discussions held and decisions made have been the main input.

3 SELECTION OF ACTIONS FOR ULLS IN ALBY

3.1 About Alby

Alby is located in the south part of Stockholm and is one of five municipal districts within the municipality of Botkyrka.

The municipality of Botkyrka has 87,600 inhabitants and more than 12,000 of these inhabitants live in Alby. The population in Alby grows with about 2 % per year (Botkyrka, 2013b). Many of the residents in Botkyrka have foreign backgrounds and over 100 different languages are spoken in the municipality (Botkyrka, 2013a). In Alby, about 60% of the residents are either born in another country or have parents that are born abroad (Botkyrka, 2013b). Alby is characterized by many of the social challenges that are typical for urban areas with limited financial resources, such as high unemployment rates. The unemployment rate in Alby is about 7.4%, which is higher than the municipality average of 4.8%. Moreover, the level of education as well as earned income per capita is lower than the municipality average. Furthermore, Alby has a comparatively large displacement of residents compared to the rest of the municipality. In 2010, 13.2% of the district's residents chose to move from Alby while 14% were new arrivals, compared to an average displacement of about 8% in the municipality of Botkyrka (Botkyrka, 2011).

The residential buildings in Alby mainly consist of larger blocks of apartment buildings, most of which were built during the so called 'Miljonprogrammet' during years 1965 – 1975 (Botkyrka, 2013a). Many of the areas built during Miljonprogrammet, Alby included, are now in great need of modernization of both building stock and outside environment while at the same time having limited access to financial resources. The rental apartments in Alby, a total of about 2,500 apartments, have traditionally been owned and managed by the municipal housing company Botkyrkabyggen (Botkyrka, 2013b). However, in 2013 about 1,300 apartments were sold to the private housing company Mitt Alby. The reason for the sale was in large part based on the need from Botkyrkabyggen to secure the financing for renovating their remaining building stock in the municipality (Botkyrkabyggen, 2014-04-01). The sale was accompanied by large protests from the residents and other stakeholders in the area (Sveriges Radio, 2013). In addition to the around 2,500 rental apartments in Alby there are about 1,000 residential houses further away from the district center, which consist of cooperative flats and terraced houses (Botkyrka, 2013b). In general, the house prices in Alby are low, which suggest low attractiveness compared to other areas (Botkyrka, 2007b).

Botkyrka municipality is actively working on sustainable development in their five districts and they have an overall vision to make Botkyrka one of the best areas in Sweden to live, operate and work in. In 2004, Botkyrka municipality signed the European declaration for Sustainable Urban Development, Aalborg declaration, with the vision of achieving a sustainable municipality. Based on this declaration, Botkyrka has set six sustainability goals for the entire municipality that represent the municipality's view of sustainable development in relation to its conditions (Botkyrka, 2007a). Botkyrka recognizes through their sustainability goals that sustainable development is about all the three interdependent dimensions: social, economic and environmental sustainability, but points out that the emphasis of working with sustainable development in Botkyrka is on the social dimension (Botkyrka, 2009).

As a part of the municipality's work on sustainable development, Botkyrka has also created a long-term program specifically for sustainable development in Alby – "The Future of Alby". The focus of sustainability efforts in Alby lies, similarly to many other areas with limited

economic resources, on social sustainability, such as to reduce unemployment, improve children's conditions, modernize area identity and increase citizen participation. However, at the same time it is emphasized that all changes must be made with regard to a sustainable environment. Concerning environmental challenges, the main focus in the long-term program is on renewing the urban environment consisting of the building stock and outdoor environment to become a more diverse, mixed and imaginative urban area that is resource-efficient with minimal environmental impact. When renewing the urban environment, however, a long-term program for sustainable development in Alby underlines that it is important to take into account the social challenges (Botkyrka, 2009).

The long-term plan for Alby was adopted in 2009 after a comprehensive dialogue inviting residents and other stakeholders to actively, via focus groups and workshops, take part in the development of the local sustainability objectives for Alby. These objectives are presented in the document "The Future of Alby" (Botkyrka, 2009).

Below, the selection processes for the selected actions for ULLs in Alby are described.

3.2 Alby ULL1: Shape your world

Summary of the Urban Living Lab (ULL)

Alby ULL 1, which will be implemented November 2013 – October 2014, will provide children and young adults (age 12-18) the opportunity to increase their knowledge and understanding of sustainable development and urban gardening while participating in renewing their urban environment. The children and young adults will discuss environmental, social and economic challenges and opportunities, but they will also have the chance to develop their urban gardening skills through learning-by-doing. The participants will, as part of the ULL, identify a suitable area in Alby which can be renewed and uplifted using urban gardening. The children and young adults will plant during the spring, take care of the garden during the summer and harvest during early autumn in 2014. The action will provide both the opportunity to develop and set up an Urban Living Lab for involving residents, in this case the children and young adults, and other stakeholders in modernisation and social uplifting, but also in effect increase the attractiveness and the sustainability in the areas.

For more information on the ULL: www.suburbanlab.eu

Selection process

Initial idea: The project partners in Sweden, Botkyrka and IVL, met in May 2013 to discuss suitable actions around which to create ULLs for the SubUrbanLab project (Meeting minutes 2013-05-02). During the meeting Botkyrka underlined the importance of drawing on the previous and current work done in Alby, e.g. the long-term Program for sustainable development "The Future of Alby" and development process of the new master plan for Alby. The residents and other stakeholders were actively involved in both of these processes and several interesting ideas for renewing the urban environment had been formulated. The idea of urban gardening was originally identified in the development process of the long-term program for sustainable development in Alby. Renewing the urban environment was identified as one of the sustainability objectives and urban gardening was identified as an innovative activity, which would not only address environmental but also social challenges to reach this objective. The sustainability objectives were later guiding the discussion when the master plan for Alby "Stadsbyggnadsidé Alby" was formulated, also involving the residents and other stakeholders in the planning of the master plan. The master plan for Alby was adopted in 2014 and promotes urban gardening (Botkyrka, 2013).

During the meeting in May, the suggestion to make use of the "dead spaces" in Alby using urban gardening was discussed. A social entrepreneur – Boodla – had already started an

initiative to make use of these areas. This initiative had been successful so far and appreciated by the residents. The initiative cooperated with the local schools, other social entrepreneurs and involved the residents, with focus on younger children. The project team decided to contact Boodla to establish a potential cooperation on an urban gardening action on which an ULL could be set up (Meeting minutes 2013-05-02).

Development of the idea: Botkyrka and IVL met again in June 2013 (Meeting minutes 2013-06-11) to continue the discussion on the selection of actions. Botkyrka had then had a first informal discussion with Agnes Fischer from Boodla. Agnes Fischer expressed her initial interest, but needed more information on the aim and goals of the SubUrbanLab project before considering partnering with the project. Botkyrka and IVL decided that as a first step IVL would produce a project brief in Swedish. Botkyrka would then organize a meeting between the project group and Boodla.

IVL and Boodla met in July (Meeting minutes 2013-07-01) and August (Meeting minutes 2013-08-26) for a more detailed discussion on possible cooperation. An initial idea for an ULL, i.e. to provide children and young adults with the opportunity to design and garden urban sites in need of upgrading, was formulated. IVL and Boodla agreed that Boodla would further develop the project idea and provide IVL and Botkyrka with a more detailed project plan and budget.

IVL and Botkyrka received a more detailed plan for the action from Boodla in September 2013 (2013-09-04). Boodla named the action Shape your world (Formge din värld). IVL and Botkyrka provided their comments and feedback on the detailed plan. Following this plan, Boodla and IVL had a number of meetings with representatives from resident and stakeholder organisations, e.g. Studiefrämjandet (study association for adult education), Innana (Civil Society Organization (hereafter CSO) with focus on cultural and social activities), Expedition Botkyrka and Good tribe (CSO with focus on raising awareness on sustainability) and Fanzingo (CSO with providing youth with opportunities to communicate their ideas via radio, TV and/or film), in order to present the idea and receive feedback and input (Meeting minutes 2013-10-07/ Meeting minutes 2013-10-21).

Final idea: A final project plan, which was accepted and encouraged by all partners and relevant stakeholders, was presented in the end of October 2013 (Meeting minutes 2013-10-21) and in early November 2013 the planning of the activities started (Meeting minutes 2013-11-05).

The SubUrbanLab Steering Committee approved the "Shape your world" project during the committee meeting 4th March 2014 (Meeting minutes 2014-03-04) as Alby ULL1.

3.3 Alby ULL2: New light on Alby Hill

Summary of the ULL

Alby ULL 2, which will be implemented during the autumn and winter of 2014/2015, will focus on how to use new LED-technology in order to turn a passage way for pedestrians in Alby, currently perceived as unsafe, into a more attractive and frequently used passage way. The LED technology today provides new opportunities to create a safe street lighting in an easy, energy efficient and inexpensive way. Unlike traditional street lighting which point marks only the walkway, modern technology allows reducing brightness while the light is distributed over a larger area, referred to as ambient light, which increases the sense light and security. Meanwhile, three so-called Gobos will be put up on the stretch, allowing images to be projected on three identified rock walls along the walkway.

The lighting – consisting of ambient light and projection of images – will be planned, designed and implemented together with local residents and other stakeholders. The newly formed Residents Council ("Borådet") in Alby Hill is particularly involved in the planning of the urban living lab as a whole and the design of ambient light, while all interested parties have the opportunity to contribute with images for the projections under the theme "Our Alby" and later participate in the decision-making about what will be projected onto the rock walls along the walkway. ULL methods that will be used including meetings with the Residents Council, test lighting and internet-based polls.

For more information on the ULL: www.suburbanlab.eu

Selection process

Initial idea: As already presented in the previous chapter 3.2, the project partners in Sweden met several times during the spring and summer of 2013 to discuss suitable actions around which to create ULLs for the SubUrbanLab project (Meeting minutes 2013-05-02/2013-06-11/2013-08-19). During these meetings between IVL and Botkyrka, the plans for a new open storm water system for Alby catchment area were introduced by the municipality and several possible actions for developing an ULL around were discussed in relation to the planning of the new open storm water system (Meeting minutes 2013-05-02/2013-06-11). One idea that came up early during the discussions was to work with exterior lighting around the wetlands in Alby, to be integrated in the new open storm water system (Meeting minutes 2013-08-19). To increase the sense of safety is a key issue in Alby, where many residents express that they feel unsafe after dark. At the same time, the municipality had adopted a policy in 2009 to focus on making street lighting more energy efficient. Energy efficient exterior lighting could then be used both to make the area safer and save energy. IVL and Botkyrka agreed on that this idea should be further investigated in relation to the suggested time plan for the storm water management project.

After an internal meeting at Botkyrka municipality in December 2013 (Meeting minutes 2013-12-03) it was concluded that the discussed ULL, linked to the storm water project, would not be possible to implement. Due to the fact that the storm water project was already delayed and the implementation time plan uncertain, it would not be fruitful to link an ULL to the proposed action (see selection criteria 3). However, the need to increase the sense of safety in Alby and to make Alby street lighting more energy efficient was still as relevant, which is why a new idea was discussed on the same topic. The new idea focused on how to use lightening in order to turn another area in Alby which currently is perceived as unsafe, together with residents and other stakeholders, into a more attractive and frequently used area (Meeting minutes 2013-12-03).

Development of the idea: Based on the initial idea to focus on energy efficient street lighting and increase the feeling of safety in Alby, IVL and Botkyrka met for further discussions in February 2014 (Meeting Minutes 2014-02-10). During the meetings, the exterior lightening expert in Botkyrka participated. The municipality lighting expert had great insight to the needs in the area, considerable knowledge about energy efficient lighting technology (LED) and previous experiences with participatory processes concerning light. One area that had previously been identified by the municipality, in dialogue with residents, as unsafe and in need to more energy efficient lighting was a walkway between the main residential area and metro station on Albyberget. The idea was developed to set up an ULL around the creation of modern energy efficient LED technology along the walkway to increase the sense of safety. The new private housing company Mitt Alby, who owns all residential buildings on Albyberget since 2013, was identified as an important stakeholder for cooperation. As a next step, a brief project idea was drafted and Botkyrka contacted the CEO of Mitt Alby, who immediately expressed their interest in the idea and cooperating with the SubUrbanLab project (Meeting minutes 2014-03-28). In April 2014, IVL and Botkyrka met with the

housing company Mitt Alby as well as a lightning expert from the University College of Arts, Crafts and Design to develop the idea further (Meeting minutes 2014-04-22). During the meeting, the idea was further discussed with emphasis on how, when and where to involve the residents and other stakeholders. Next, a more detailed project plan and budget was developed by the project team, and discussed between the involved ULL2-project partners in May 2014 (Meeting minutes 2014-05-12) and with residents from Albyberget active in the local Residents Council in August 2014 in order to present the idea and receive feedback and input (Meeting Minutes 2014-08-26).

Final idea: A final project plan, which was accepted and encouraged by all partners and relevant stakeholders, was presented in the end of September 2014 (Meeting minutes 2014-09-03) which also was the kick-off meeting for detailed planning of the implementation of the ULL.

The SubUrbanLab Steering Committee approved "New light on Alby Hill" as Alby ULL2 during the committee meeting the 4th March 2014 (Meeting minutes 2014-03-04).

3.4 Alby ULL3: Vacant Space Alby

Summary of the ULL:

Alby ULL 3 will be implemented September 2014 – July 2015 and focuses on developing ideas for temporary activities for a 9000 m^2 vacant space in Alby Centre together with residents and other stakeholders. The vacant space, a former school ground, has been empty and not in use since the school was demolished in 2009. The long-term plan for the space is to build residential buildings. However, since the area will be affected by the lowering of the Alby road, a measure that is planned to take place in 10-15 years when the road has reached its service life, the space needs a short-term use.

The ideas and suggestions for temporary use of the former school ground will developed together with residents and other stakeholders in Alby using workshops and co-creation online. The ideas will be summarized in a report, together with ideas for financing, and submitted to the decision-makers in Botkyrka municipality.

For more information on the ULL: www.suburbanlab.eu

Selection process

Initial idea:

As with the other ULL's in Alby, presented in the previous chapter 3.2 and 3.3, the project partners in Sweden met several times during the spring and summer of 2013 to discuss suitable actions around which to create ULLs for the SubUrbanLab project (Meeting minutes 2013-05-02/2013-06-11/2013-08-19). During these meetings it was concluded that a third ULL that met the selection criteria (see 2.5. Methodology) could not be identified that early on in the project and the decision on a third action was hence postponed.

In March 2014, IVL and Botkyrka had a meeting to discuss a third action around which to develop and set up an ULL (Meeting minutes 2014-03-28). During the meeting the master plan for Alby "Alby stadsbyggnadsidé", which had been adopted just a few weeks earlier by the municipality, was discussed. One prioritized area for development in the master plan is the vacant space, a former school ground which has not been in use since the school was demolished in 2009. The action was discussed with focus on how to make use of ULL methodologies, i.e. involve the residents and other stakeholders in the process of coming up with ideas and suggestions for temporary activities, based on the needs of the residents. After the meeting, a first draft of the idea was developed based on the discussion and circulated amongst the project partners for further discussions.

Development of the idea:

In the middle of May 2014, the mandate for developing ideas for temporary activities for the vacant space, together with a variety of stakeholders, was delegated to the Alby Area Group. The Alby Area Group consists of representatives from different departments of the municipality's administration and is responsible for developing the area together with the residents and in line with the long-term program for sustainable development "The Future of Alby". As the mandate concerning the vacant space was new for the Area Group, they needed to have internal discussions before further discussing the action with the SubUrbanLab project.

In August 2014, IVL met with representatives from the Alby Area Group to discuss setting up an ULL in connection to the action (Meeting minutes 2014-08-27). During the meeting, the ULL approach was discussed as well as the potential role of IVL and different co-creation methods to be used. The representatives from the Alby Area Group expressed their interest in adopting an ULL approach. In September, the Area Group and IVL met again to the discuss the action and ULL more in detail, e.g. how to make use of the online co-creation tool OWELA by VTT (Meeting minutes 2014-09-12). On the 23rd of September, the plan was presented and discussed with representatives from different departments of the municipality's administration and other stakeholders, such as local housing companies and CSOs (Meeting minutes 2014-09-23).

Final idea: A final project plan was agreed on by project partners in the middle of October 2014 (Meeting minutes 2014-10-15) when the ULL was discussed more in detail.

The SubUrbanLab Steering Committee approved the "Vacant Space Alby" project during the committee meeting the 28th of October 2014 (Meeting minutes 2014-10-28).

4 SELECTION OF ACTIONS FOR ULLS IN PELTOSAARI

4.1 About Peltosaari

Peltosaari is a suburb in the centre of the city of Riihimäki, which is situated 70 km from Helsinki. Peltosaari is located next to the railway station and the centre of the Riihimäki. Approximately 10 % (around 2 700 persons) of the total population of Riihimäki (about 29000), half of the rental house residents in Riihimäki, live in Peltosaari.

Peltosaari was built in 1970-1980 as a pilot area for electric heating in multi-storey houses. Generally, all the electricity expenses have been included in the rent or service fees, which has led to quite high energy and living costs in the area. Most of the houses need renovation and the privately owned housing companies have e.g. renovated facades and roofing.

The area has a large number of social housing, the unemployment rate is higher than the city average and the average income is lower than in the other parts of the city. The city-owned rental housing company, Riihimäen Kotikulma, has not been able to renovate all the buildings.

Peltosaari has a good school and two day-care units, lots of green areas and very good public transportations and connections to the city centre. Many people are actively participating in voluntary work. For example the local residents' society, Peltosaari-seura, which was founded already in 1975 operate a recycle centre/flea market in an old commercial building and is arranging several other activities for residents.

Since 2000 several development projects have been implemented in order to improve the well-being of the residents and the reputation of the Peltosaari. In 2010 the Peltosaari project was launched. It aims to involve the residents and other stakeholders in local cooperation and the development of the area.. The present project was preceded by an overall study related to the challenges and opportunities in the development of Peltosaari (Vaattovaara, Kortteinen & Ratvio, 2009) and a study of eco-efficient renewal of the neighbourhoods (Lahti et al., 2010). The Peltosaari-project is an umbrella for numerous projects with varying goals and sources of financing. The experiences and feedback gained from the previous projects have provided important input in the selection and decision making process regarding the ULLs in the SubUrbanLab project.

An architectural competition for development ideas for Peltosaari was arranged in 2010 - 2011. The winning idea was further developed by the city planners and a new general plan was introduced after discussions with residents and other stakeholders. The new plan provides the opportunity to build approximately 45 000 m^2 of new residential buildings in the area.

Environmental aspects such as energy saving in the housing stock, increasing the use of district heating and implementing solar energy systems are important parts of the new general plan. A booklet (funded by The Housing Finance and Development Centre of Finland (ARA)) with the title: "Holistic renewal of Peltosaari residential area in Riihimäki" was published in May 2013 (Väkevä-Harjula, 2013).

The city of Riihimäki is also committed to different actions for sustainable development, such as: Climate strategy 2020 – towards carbon-neutral Riihimäki, Energy efficiency contract for 2008-2016 (EU recommendation to achieve 9 % energy savings) and Riihimäki also publishes every year an environmental report, which presents the results of different actions.

4.2 Peltosaari ULL1: Energetic co-operation

Summary of the ULL:

The first ULL in Peltosaari focuses on improving the energy-efficiency of the buildings through resident-oriented energy saving including electricity and hot and cold domestic water usage. The idea is to motivate residents living in rented apartments to decrease their energy usage by increasing their awareness on their energy consumption. This is done via real time monitoring and visualisation of current energy use in their own apartment. Most likely there will also be a need for further instructions and/or motivation for decreasing energy use. The housing company of Kotikulma is planning to acquire necessary electricity meters for this action. These meters are planned to be installed in each apartment in a rental apartment building that is owned by Kotikulma.

The objective is to find out the effect of electricity meters on residents' energy usage, and how residents' motivation for saving energy could be increased. The meters will also provide more detailed information on how the energy consumption of the apartments is composed. The information will be used as a basis for dialogue between the housing company and the residents. The goal is to identify the most promising and effective areas for reductions and to inspire co-development of ideas to improve the energy efficiency. Different motivation methods will also be studied. One typical motivator is monetary savings through decreased energy bills. However, in the rental apartment buildings of Peltosaari the energy bill is included in the rent, and thus residents do not see the direct economic effects of energy saving in their own bill, which leads to a low interest in saving energy. It will probably not be possible to link the monitored energy usage in each apartment directly to the residents' individual rental bills. However, different methods for rewarding the residents' improved energy efficiency behaviour could be used. As an example, those consuming less energy than average, or less than what they have consumed before, could get a reward, e.g. renovations or improvements to their apartment. Close collaboration with the residents is essential in order to create incentives that the residents find motivating and acceptable.

Another interesting topic for research is how residents will accept and use the information about their own energy consumption and whether it affects their energy usage and behaviour. Kotikulma will acquire experiences about reducing energy consumption, and information on energy and cost saving potential. The company can also gain from the residents' knowledge and ideas about what affects the energy consumption and what kinds of improvements would best work in their everyday life. Some ideas for improvements will probably not be in the hands of the residents, and therefore it is important that the housing company actively participates in the discussions and adapts the ideas.

The ULL will utilize earlier experiences gained from the Innova-house project, i.e. the renovation of a 1970's apartment building to passive house standard (completed 2012) and the renovation of the Otavankatu 4 house (December 2013), during which electric heating was changed to district heating and electricity meters were installed in apartments.

The owner of the action is the City of Riihimäki. Relevant stakeholders are the Kotikulma housing company, the energy company providing district heating and the residents.

The Peltosaari ULL1 is planned to be implemented July 2014 - June 2015.

Selection process

Initial idea:

Peltosaari was built according to the 1970's building standard and as a pilot area for electric heating in apartment buildings, since during the time of the construction electricity prices

were very low. As of today the energy consumption for heating is high and household electricity is included in the rent and maintenance charge in the privately owned houses. Rising energy prices lead to high living costs for the residents, which is the reason why it is necessary to implement resident oriented energy-saving actions. The initial idea for the ULL (described in the summary above) was based on a previous research project by VTT "Eco-efficient renewal of a neighbourhood" (Lahti et al, 2010), where guidelines for energy saving measures were developed.

Development of the idea:

In the project plan for SubUrbanLab, the resident oriented energy saving was described as a potential ULL. During the kick-off meeting of the SubUrbanLab project in Stockholm (Meeting minutes 2013-04-25/26), the Energetic-cooperation action was chosen to be the ULL1 in Peltosaari. The idea was presented to the Peltosaari Parliament and the residents (Meeting minutes 2013-03-20 and 2013-05-22) after the funding was confirmed.

The project manager of Peltosaari Irene Väkevä-Harjula was invited in March 2013 to another job in The Housing Finance and Development Centre of Finland (ARA), so there was a short break in developing the ideas further. The new Peltosaari project manager Ilari Seitsonen was nominated in the end of August 2013.

A workshop for stakeholders in Peltosaari was arranged by VTT (Meeting minutes 2013-06-17), where possibilities and difficulties for carrying out the planned actions were discussed. The project group in Riihimäki (Raija Niemi, Anniina Korkeamäki and Ilari Seitsonen) further developed the themes for the action in September 2013 (Meeting minutes 2013-09-27).

Several meetings were held during the autumn 2013 with different suppliers in order to find out suitable and affordable technologies for energy metering (Schneider 2013-10-09, Echolog 2013-10-04, Kaukolämpö 2013-09-26). As the housing company Kotikulma has a central role in this action, the planning was made in co-operation with them, with the property manager Anne Kilic (Meeting minutes 2013-10-18) and the HVAC specialist Kim Junell (Meeting minutes 2013-11-25). A meeting with a private investor, Petri Yrjö-Koskinen, was held (Meeting minutes 2013-11-22), after he had bought an old rental house at Jupiterinkatu 5. He was willing to participate in this action and was planning to install electricity meters in each flat.

Final idea:

The final decision of this ULL and the necessary measures were decided in the project work meeting in spring 2014 (Meeting minutes 2014-03-03) and approved by the Steering Committee on 4th of March 2014 (Meeting minutes 2014-03-04)

4.3 Peltosaari ULL2: Sustainable decisions

Summary of the ULL

The target of ULL2 is to present a roadmap for sharpening the rules and practises for municipal decisions related to energy efficiency and sustainability of building and renovation. The target is set especially taking into consideration that after 2020 public buildings should be built as nearly zero energy buildings, according to European Commission Energy Performance of Buildings directive. Furthermore the ULL2 address other decision making situations related to energy efficiency and sustainability targets and try to show what has to be done to achieve these goals.

As the decisions regarding energy efficiency and sustainability of building and renovation are made by the city board and city council, they are the main stakeholder group in this ULL. The decision makers will be involved by organising seminars on sustainable building and development. Also, possibilities for using renewable energies in the city owned buildings will be demonstrated. One important part of this ULL is to start using the measures for life cycle costs and long term planning in order to give decision makers enough information about alternative solutions in early stage of a project.

The action started with an example analysis for utilising solar energy on the roofs and/or facades of a school building. The analysis was done by a PV (Photo Voltaics) expert company called Soleras. It included an implementation plan and an evaluation of the payback time of the PV installation. Excess solar electricity production, which is not utilised in the school (e.g. during summer time) can be used in nearby buildings owned by the housing company Kotikulma or the city of Riihimäki. Photovoltaic electricity is most economical, when it can be used directly on site. In addition, the solar energy pilot can be used for study visits and as inspiration for other buildings in the area. This example analysis demonstrated how benefits and sustainability related investments could be analysed.

Selection process

Initial idea:

The new Peltosaari master plan has a plot for a near zero energy office building and a Village House. The idea was to emphasize the ecological goals of the Peltosaari area and to set an example for other builders in the area. The resident have for a long time expressed the need for more common areas/spaces and the Village House would address this need. The original plan for ULL2 was to identify sustainable and innovative energy systems for the planned Village House and office building in Peltosaari. This ULL was redefined as Village House and the office building won't be built during the SubUrbanLab –project (see selection criteria's).

Development of the idea:

In the early stage it became obvious that there are no possibilities to implement renewable energy systems in Peltosaari within the timeframe of the SubUrbanLab project. It was also difficult to find ways to involve the residents in the planning of these systems (Meeting minutes 2013-09-27). A preliminary survey of the PV-system on the school roof and on a canopy between commercial buildings was made by Soleras (2013-10-04).

Different kinds of ideas were discussed within the Riihimäki project group (Meeting minutes 2013-11-05) and a 3D model of the future office building was ordered. The aim was to find out how much solar energy can be produced on this kind of building (Meeting minutes 2013-11-13).

As the financial situation of the city does not allow building of the office house and the Village House in the near future and as the decisions for this kind of investments are made by the city board and city council, a different approach was chosen. Instead, the focus was shifted to focusing on the decision making processes and sharing of information in the municipality of Riihimäki. A seminar on sustainable building and development is planned to be held for all decision makers of the city (Meeting minutes 2014-03-31).

The aim with the seminar is to increase the involvement of the decision makers in the preparation phase, enhance collaboration between the municipal officers and decision makers, improve the decision-making process and identify how to reach the city's sustainability goals in a better way. In the seminar the main goal is to discuss the city's sustainability agreements, e.g. concerning sharpening the rules, practises and decision-making processes related to

sustainability and energy efficient buildings and renovation decisions until 2020. The seminar participants will make their own roadmaps for how to reach the city's agreements and targets. The roadmaps will identify what kinds of measures must be done to achieve the goals. Through active discussion between the different stakeholders new ideas on how to support and improve the decision making process and related information needs can be identified. Seminars will also help the decision makers to understand and assess the importance of long term planning of investments and related life cycle costs, instead of making decisions plainly based on short-term investment costs.

Final idea:

The final idea is to support sustainable decision-making in the near future and the planning of how to reach the city's sustainability and energy goals and agreements in the long term planning. Furthermore the ULL aim to increase communication and information sharing among different stakeholders and municipality departments. This will be done inter alia by organising energy and climate target seminars for decision makers and civil servants in the city administration. All this supports at the high level general interest and investments in Riihimäki and Peltosaari e.g. via improving the ecological image and increased appreciation of the local area.

The ULL will inter alia address the following municipal agreements and targets for climate and energy policies and targets adopted by the city of Riihimäki:

- Sustainable development work in Riihimäki [Riihimäki, 2014]
- Riihimäki climate strategy 2020 [Riihimäki, 2011]
- The operation plan for the Energy efficiency agreement 2008-2016 [Riihimäki, 2010]
- Riihimäki rental apartment strategy [Riihimäki, 2007].

The SubUrbanLab Steering Committee approved "Sustainable decisions" as Peltosaari ULL2 during the committee meeting the 4th March 2014 (Meeting minutes 2014-03-04).

4.4 Peltosaari ULL3: Together more

Summary of the ULL

The aim is to start some of the services that local residents are longing for in an existing commercial building, which currently contain the local Peltosaari area development project office, a restaurant and local recycling/flea market operated by the residents. The municipality has been negotiating about buying the whole building, but the discussions have not yet been successful. In order to implement the new general plan of the area, the old Peltosaari shopping centre needs however to be owned by the municipality.

The Peltosaari project has identified several functions which could be operated in the existing building, such as a health kiosk, local social services, an afternoon club for children, a meeting point for residents. Since it won't be possible to create a new physical "living room", , one of the things the residents have been longing for, within the time frame of the project, the goal is to increase utilisation of the existing spaces in the building. A number of communal activities and inexpensive leisure activities are planned for the residents. The goal is to identify various types of activities that could be arranged, and societies, organizations, projects or volunteers that could arrange them, and to address a place to arrange them. Improvements regarding information and communication of local events and activities is also been planned. The ULL tries to reach also those residents who usually don't participate in this type of activities.

Selection process

Initial idea:

In the project plan this ULL was originally defined as planning the functions of the future Village House together with residents. As the timing of the building of a new Village House is not certain, the plan has been modified.

Development of idea:

In the beginning of 2014 renting of an empty office space in the Peltosaari shopping center was under negotiations, but in March 2014 the project office flat "Ärrä" was bought by a private person. As the municipality could not count on having these spaces available in the future, the project group had to start rethinking the ULL. The municipality is currently trying to identify other available spaces in Peltosaari and have to consider the all the opportunities cannot necessarily be organised in the same location.

Final idea:

This ULL aims to organise some services and spaces for local people to increase the areas attractiveness, the number of municipal activities and the sense of community in the area. Activities include improvements regarding information and communication of local events and other activities including providing low cost communal leisure time activities for residents. The ULL will identify what kind of activities could be arranged in Peltosaari and support societies, organizations, projects or volunteers, which are interested in arranging various activities, and provide suitable locations. Discussions and meetings will be arranged e.g. about possibilities to use Kotikulma's spaces also for other activities, and collaboration with the local school. These activities are in line with the responses in the resident questionnaire, which was conducted during the summer 2014 in order to get more information on what kinds of hopes and needs the residents' needs and wishes have.

The Peltosaari ULL3 also aims to improve the outdoor environment, i.e. making the surroundings more attractive in co-operation with the residents and housing companies. One part of ULL3 is an urban gardening project for children and young people. Riihimäki has reserved a plot, where different herbs etc. can be planted and in the local school different classes are taking care of pre-planting the seeds for the plot.

Another part of ULL3 is to make a park around the pond in the north eastern corner more comfortable for picnics etc. A bridge needs to be painted, benches repaired, one or two barbeque areas assembled and the vegetation cut and trimmed. The residents will be asked to provide additional ideas. Peltosaari ULL3 and Alby ULL1 will be co-operating and exchanging ideas regarding urban gardening for youth.

The SubUrbanLab Steering Committee approved "Together more" as Peltosaari ULL2 during the committee meeting the 4th March 2014 (Meeting minutes 2014-03-04).

5 REFERENCES

Botkyrka, 2013a http://www.botkyrka.se/kommunochpolitik/ombotkyrka/kommunfakta (hämtad:2014-02-03)

Botkyrka, 2013b http://www.botkyrka.se/Alby/omAlby/fakta (hämtad: 2014-02-03)

Botkyrka kommun (2011), Områdesvis statistik,

http://www. usk.stockholm.se/internet/omrfakta/omradesvisbotkyrka.asp (hämtad: 2011-12-12)

Botkyrka kommun (2009), Framtid för Alby – ett långsiktigt program för hållbar utveckling, tillgänglig online: www. botkyrka.se/Alby (hämtad: 2011-11-20)

Botkyrka kommun, (2007a), Ett hållbart Botkyrka – startdokument för kommunens arbete med hållbar utveckling kopplat till deklarationen Ålborg + 10, tillgänglig online: www. botkyrka.se (hämtad: 2011-11-20)

Botkyrka kommun (2007b), Framtid för Alby – diskussionsunderlag, tillgänglig online: <www.botkyrka.se/Alby> (hämtad: 2011-11-20)

Botkyrkabyggen, Försäljning av lägenheter på Albyberget, http://www.botkyrkabyggen.se/CM/Templates/Article/general.aspx?cmguid=0001dc7f-d805-4aff-959c-020e416b8ed4 (Accessed 2014-04-01).

Lahti, P., Nieminen, J., Nikkanen, A., Nummelin, J., Lylykangas, K., Vaattovaara, M., Kortteinen, M., Ratvio, R. & Yousfi, S. (2010,) Riihimäen Peltosaari – Lähiön ekotehokas uudistaminen (Riihimäki Peltosaari – Eco-efficient renewal of a neighbourhood). Espoo 2010. VTT Tiedotteita 2526. 107 p. + app. 13 p.

Riihimäki, 2007: Riihimäki rental apartment strategy. Available in Finnish at: http://www.riihimaki.fi/Riihimaki/Tekninen-keskus/Peltosaari-projekti/Peltosaari-projekti/Vuokra-asuntostrategian-toimenpiteet/

Riihimäki, 2010: The operation plan for the Energy efficiency agreement 2008-2016. Available in Finnish: http://www.riihimaki.fi/Tiedostot/RIIHIM%C3%84KI_tiedostot/RmkYmp%C3%A4rist%C3%B6keskus/Kansio1/KETS_toimintasuunnitelma_310510.pdf

Riihimäki, 2011: Riihimäki climate strategy 2020. Available in Finnish at: http://www.riihimaki.fi/Tiedostot/RIIHIM%C3%84KI_tiedostot/RmkYmp%C3%A4rist%C3%B6keskus/Kansio1/Riihim%C3%A4en%20ilmastostrategia.pdf

Riihimäki, 2014: Sustainable development work in Riihimäki. Web site (in Finnish): http://www.riihimaki.fi/Riihimaki/Ymparisto/Ymparisto/Ymparistopolitiikka/Kestava-kehitys/

Sveriges Radio (2014), Ja till försäljning av Albyberget i Botkyrka, http://sverigesradio.se/sida/artikel.aspx?programid=103&artikel=5576188, 26 juni 201, (Accessed 2014-04-23)

Vaattovaara, M., Kortteinen, M. & Ratvio, R. (editors) (2009), Miten kehittää lähiötä? - tapaustutkimus Riihimäen Peltosaaresta, metropolin laidalta. Suomen ympäristö; vol. 2009, nro 46. Asumisen rahoitus- ja kehittämiskeskus, 179 p.

Väkevä-Harjula, I. (ed.) (2013), Riihimäen Peltosaaren asuinalueen kokonaisvaltainen uudistaminen. Asumisen rahoitus- ja kehittämiskeskuksen raportteja 4, 108 p.